

Project Report – March 2003

LIMPAST

Grain production advancement project

Progress and achievement of goals:

Goal 1: Assessment of agro-economic potential.

An assessment of the natural resource base and its agronomic potential at the seven selected areas was done by means of a diagnostic survey. The ARC-Institute for Soil Climate and Water (ISCW) was mandated to do the survey in September 2002.

Despite time limits, a thorough study was done in the following steps:

- ◆ A desk-top assessment
- ◆ O-site assessment by means of soil profiling, sampling and laboratory analysis of key cultivated lands.
- ◆ Collation and interpretation of climate information
- ◆ Assessment of maize production potential

The survey resulted in a very useful report document that can be viewed as a guideline and point of departure especially with regards to improved and sustainable crop production. It is very important to note that the main finding of the survey was that all seven project localities are marginal with respect to their potential for maize production. Target yields were determined for each locality based on rainfall and soil data. Although a conservative approach was followed, predicted target yields are very low and vary between 600 kg/ha and 2000 kg/ha. This holds very important implications for the economical viability of these farming units. There is also a clear indication that some soils are much more suitable for crop production than others. In view of the marginality of these areas in terms of maize production, the following is suggested as important strategic ways to be considered:

- A selective land use approach
- Low input/low cost approach
- Crop diversification

The low production potential was specifically considered during the training courses presented to farmers as well as during the planning of the demonstration trails. However, a more critical approach is needed to review the project in the light of the strategic important information provided in this report. (See report attached)

Goal 2: Establishment of study groups

The formation of study groups can be seen as relatively successful. Study groups were formed at:

- Motiba
- Ga-Rampuru
- Mashashane
- Sofaya and Giyani

At Laastehoop and Zebedela the formation of study groups was not successful mainly due to poor collaboration between the assistant managers and leader farmers in these areas.

Although study groups were formed, much work will have to be done to develop these groups into strong and effective groups of farmers that can work independently towards the achievement of the long-term goals of the project.

Goal 3: Provision of training

a) Farmer training:

Introductory training was provided to farmers on the following topics:

- ◆ Know your soil – ARC – ISCW
- ◆ Production practices for maize – ARC – GCI
- ◆ Management –GSA

These one-day training sessions conducted in October 2002 are seen as introductory training. Follow-up advanced training will be provided as the project develops.

The ideal of interactive learning has yet not been exploited. Training as a core activity will have to be planned in more depth to ensure a training approach that will make an impact in the farming communities.

b) Training of Assistant managers:

The assistant managers have been identified as a specific target group for training. It has become clear that they are in dire need of support and training

especially on the project management and technical levels. The study tour of March 2003 was specifically designed to address these needs.

The following themes were selected:

- i. Soil, the basis of crop production.
- ii. Extension management with the focus on guidelines for effective extension at community level.
- iii. On-farm trials – principles, planning and implementation.
- iv. Visit to two leader farmers in the North-West Province.

From an organisational point of view the tour has been successful. Tour members participated enthusiastically. However, the full value of the tour will only become clear when the assistant managers will start to apply their newly gained skills and concepts to their respective working environments. An important expectation now is that the group will become actively involved in all aspects of on-farm trials.

Goal 4: Establishment of links with service providers

Apart from the important role of the Department of Agriculture in the project two more strong partnerships have been established namely that of the ARC and Progress Milling.

The ARC is seen as a major partner in terms of the provision of technical expertise while Progress Milling is seen as the "on the doorstep" provider of marketing services and even certain inputs needed for production. Partnerships that have not been clearly formed are that of Grain South Africa, Landbank and the private companies.

Although the companies PANNAR and OMNIA gave excellent service in terms of provision of seed and fertilisers for demonstration plots, no link between these companies and farmers at community level exist. The project management team will have to work purposefully towards the establishment of strong linkage mechanisms with the private companies.

Recommendations

1. Project management

- ◆ A two-day planning workshop to be held not later than May 2003. Assistant managers need to become more accountable for the project

management process at community level. Full participation in the planning process will help them to have a better understanding of their specific responsibilities.

- ◆ A follow up survey needs to be done in terms of farm and enterprise information.
- ◆ Leadership structures will have to be formed at all study groups. Training with the emphasis on entrepreneurship will be needed to mobilise the study groups.
- ◆ Incentives for high performing assistant managers.
- ◆ Employment of a technical assistant (already involved in the project) to take responsibility for the technical aspects of demonstration trials. Appointment on a contractual basis is suggested.

2. Technology and production practises for more sustainable production.

- ◆ Rainfall use efficiency (RUE) has been identified as one of the most important strategic approaches to counteract the high risks in the target areas. More expertise will have to be consulted in order to implement this strategy. A multi- disciplinary team under the leadership of Mr Jan Schoeman of ARC –ISCW is recommended.
- ◆ The concept of conservation tillage needs to be investigated. The practice has the potential to contribute to higher production levels under marginal conditions, including improved RUE. In addition it can also contribute to lower the very high costs of mechanisation.
- ◆ In view of the very clear constraints in terms of soil nutrients at all of the localities, a soil fertility management strategy (SFMS) will have to be implemented. Such a strategy will probably imply the inclusion of legume plants in the cropping system as well as organic fertiliser resources. It is suggested that the SFMS becomes a specific technical focus area of the project and a major concern of the project management team.

3. Farmer training focus

- ◆ An interactive learning approach also called participatory extension approach (PEA) needs to be promoted. To achieve this much more time will have to be spent with farmers in training sessions.
- ◆ Topics such as production management and farm calculations and measurements needs to be included in the training program for farmers.

4. Training support to assistant managers

- ◆ Crop production management training is recommended.

- ◆ Training in crop yield estimation will enable assistant managers to monitor and evaluate crop performance at community level.

5. Collaboration with Universities

Following preliminary collaboration arrangements have been made:

- ◆ University of the North: Dr. Kingsley Ahisi – Technical advice on crop production systems.
 - ◆ University of Pretoria: Department of Economics, Extension and Rural Developments – Consultation and training on project management and extension practice.
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